

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A method of treating metastatic tumors in a subject, which method comprises:

administering to a subject afflicted by metastatic tumors effective amounts of one or more green porphyrin photosensitizer, and one or more immuno-adjuvant, and a cytokine, wherein the cytokine is Flt3-ligand or GM-CSF, and

irradiating said subject with light absorbed by said one or more green porphyrin photosensitizer, wherein said method is photochemical mediated photodynamic therapy (PDT).

Claim 2 (Currently Amended): A method of preventing or inhibiting the development of metastatic tumors in a subject, which method comprises:

administering to a subject at risk for developing metastatic tumors effective amounts of one or more green porphyrin photosensitizer, and one or more immuno-adjuvant, and a cytokine, wherein the cytokine is Flt3-ligand or GM-CSF, and

irradiating said subject with light absorbed by said one or more green porphyrin photosensitizer.

Claim 3 (Currently Amended): A method of treating a primary tumor in a subject, which method comprises:

administering to a subject clinically diagnosed with a primary tumor effective amounts of one or more green porphyrin photosensitizer, and one or more immuno-adjuvant, and a cytokine, wherein the cytokine is Flt3-ligand or GM-CSF, and

irradiating said subject with light absorbed by said one or more green porphyrin photosensitizer.

Claim 4 (Original): The method of claim 2 wherein said subject has previously undergone cancer or tumor therapy.

Claim 5 (Original): The method of claim 1 wherein said effective amount of one or more photosensitizer is in the range of 0.05 to 10 mg/kg.

Claim 6 (Original): The method of claim 5 wherein said effective amount of one or more photosensitizer is in the range of 0.05 to 1 mg/kg.

Claim 7 (Original): The method of claim 5 wherein said effective amount of one or more photosensitizer is in the range of 1 to 10 mg/kg.

Claim 8 (Original): The method of claim 1 wherein said one or more photosensitizer is administered intravenously and said one or more immuno-adjuvant is administered by injection into tumors after irradiation.

Claim 9 (Original): The method of claim 1 wherein said irradiation is localized to the tumors.

Claim 10 (Original): The method of claim 2 wherein said one or more photosensitizer is administered intravenously or intratumorally.

Claim 11 (Original): The method of claim 1 wherein said one or more photosensitizer is administered, and the subject irradiated, before administration of said one or more immuno-adjuvant.

Claim 12 (Original): The method of claim 1 wherein said one or more immuno-adjuvant is administered systemically.

Claim 13 (Previously presented): The method of claim 1 wherein said one or more photosensitizer is a benzoporphyrin derivative (BPD).

Claim 14 (Original): The method of claim 13 wherein the BPD is BPD-MA, EA6, or B3.

Claim 15 (Original): The method of claim 1 further comprising an additional irradiation, before irradiation with light absorbed by said one or more photosensitizer, with light of a wavelength which improves penetration of the absorbed light.

Claim 16 (Original): The method of claim 1 wherein said one or more immuno-adjuvant comprises mycobacterial cell wall skeleton and/or lipid A from a gram negative bacterium.

Claim 17 (Original): The method of claim 16 wherein said lipid A is de-3-O-acylated lipid A.

Claim 18 (Original): The method of claim 8 further comprising additional systemic administration of immuno-adjuvant to said subject.

Claim 19 (Original): The method of claim 18 wherein said additional systemic administration occurs at least from 1-3 times and occurs at an interval of about two weeks.

Claim 20 (Original): The method of claim 1 further comprising at least 1-3 repeats of the administering and irradiating steps.

Claim 21 (Original): The method of claim 14 wherein said BPD is BPD-MA.

Claim 22-27 (Cancelled)

Claim 29 (Previously presented): The method of claim 2 wherein said one or more photosensitizer is administered intravenously and said one or more immuno-adjuvant is administered by injection into tumors after irradiation.

Claim 30 (Previously presented): The method of claim 2 wherein said one or more photosensitizer is a benzoporphyrin derivative (BPD).

Claim 31 (Previously presented): The method of claim 30 wherein the BPD is BPD-MA, EA6, or B3.

Claim 32 (Previously presented): The method of claim 2 wherein said one or more immuno-adjuvant comprises mycobacterial cell wall skeleton and/or lipid A from a gram negative bacterium.

Claim 33 (Previously presented): The method of claim 32 wherein said lipid A is de-3-O-acylated lipid A.